

REMARKS

Claims 1, 5-11, 13-15, 19-20 and 22-31 were examined by the Office, and in the Office Action of December 5, 2007 all claims are rejected. With this response claims 1, 6, 15 and 22-24 are amended, and claims 5, 7-8 and 20 are cancelled. All amendments are fully supported by the specification as originally filed. Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following discussion.

Claim Objections

Claim 1 is amended to replace “a” with “the” after wherein on line 4. Accordingly, applicant respectfully requests withdrawal of the objection to claim 1.

Claims 6 and 22 amended to depend from non-cancelled claims, and accordingly applicant respectfully requests withdrawal of the objections to claims 6 and 22.

Claim Rejections Under § 103

In section 6, on page 3 of the Office Action, claims 1, 5-8, 10-11, 13-15, 19-20 and 22-31 are rejected under 35 U.S.C. § 103(a) as unpatentable over Wylie et al. (U.S. Patent No. 5,974,329) in view of MacDonald (U.S. Patent No. 5,732,354). Applicant respectfully submits that claim 1 is not disclosed or suggested by the cited references, alone or in combination, because the cited references fail to disclose or suggest all of the limitations recited in claim 1. Claim 1 recites computing distances between the mobile station and at least two base stations using the feature and a characteristic parameter describing the line-of-sight conditions of the at least two base stations. Claim 1 is amended to clarify that the feature includes at least travel time or travel time difference of the signal between the mobile station and the at least two base stations. Accordingly, claim 1 recites computing distance using both time of arrival measurements and the characteristic parameter describing excess path lengths. Therefore, the cited references at least fail to disclose or suggest these limitations of claim 1.

Wylie is directed to the determination of a location of mobile station in an environment where some of the base stations are line-of-sight with respect to the mobile station and others are non-line-of-sight. It is alleged that a characteristic parameter of the line-of-sight conditions of the radio propagation environment of the base station is determined within Wylie – simply, in line-of-sight (LOS) or not in light-of-sight (NLOS). However, Wylie does not disclose a characteristic parameter which describes excess path

lengths caused by obstacles in the environment by means of one of a number of discrete levels.

MacDonald appears to be related to a method of determining the location of a mobile telephone using multiple antennas in cells. Signal strengths received by the antennas from the mobile telephone are provided to the mobile telephone. The mobile telephone uses these signal strengths in conjunction with path propagation slopes for each antenna to determine a location for the mobile telephone.

In contrast to claim 1, MacDonald relies on power measurements as modified by propagation path slopes which may result in inaccurate measurements. MacDonald does not provide any teaching as to how distance can be computed using both a measurement based on time and a characteristic parameter describing excess path lengths. Wylie does not disclose or teach how distance can be computed using both the time of arrival measurements and a characteristic parameter describing excess path lengths. Therefore, the cited references fail to disclose or suggest a calculative connection between time measurement and the characteristic parameter describing excess path lengths.

The present invention requires this connection as claimed in claim 1 – “commuting the distances...using said measured signal feature and the characteristic parameter...” This results in more accurate location determination than in both Wylie and MacDonald. However, the cited references, alone or in combination, at least fail to disclose or suggest this feature of claim 1. For at least this reason, claim 1 is not disclosed or suggested by the cited references.

Independent claims 15 and 23-24 contain limitations similar to those recited in claim 1, and therefore are not disclosed or suggested by the cited references for at least the reasons discussed above with respect to claim 1.

The dependent claims rejected above, all ultimately depend from the above mentioned independent claims, and therefore are not disclosed or suggested by the cited references at least in view of their dependencies.

In section 7, on page 8 of the Office Action, claim 9 is rejected under 35 U.S.C. § 103(a) as unpatentable over Wylie in view of MacDonald and Hilsenrath et al. (U.S. Patent No. 6,026,304). Claim 9 ultimately depends from independent claim 1, and therefore it not disclosed or suggested at least in view of its dependency.

Conclusion

The objections and rejections of the Office Action of December 5, 2007, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1, 6, 9-11, 13-15, 19, 22-31 to issue is earnestly solicited. The undersigned hereby authorizes the Commissioner to charge Deposit Account No. 23-0442 for any fee deficiency required to submit this response.

Respectfully submitted,

Date: 5 May 2008

Keith R. Obert
Keith R. Obert
Attorney for the Applicant
Registration No. 58,051

WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
755 Main Street, P.O. Box 224
Monroe, Connecticut 06468
Telephone: (203) 261-1234
Facsimile: (203) 261-5676